

ABSTRACT OF THE DISCLOSURE

5 A non-woven mat useful for a wide variety of purposes, including forming reinforced resin products, is produced in a manner having different specific uses of, and advantages over, conventional chopped strand mats and conventional glass tissue. The mat is preferably made by the foam process (but may be made by the liquid process), and at speeds well in excess of 60 m./min., and has a substantially uniform construction even when low density (e.g. 100 g/m² or less). At least 20% (preferably at least 85%) of the fibers are in fiber bundles with between 5-450 fibers/bundle. The fibers (typically at least 85%) have a length between 5-100 mm, preferably 7--50 mm, substantially the same as the length of the fiber bundle they are in. The fibers are preferably held in the bundles by substantially non-water soluble sizing, such as epoxy resin or PVOH. The fibers in the bundles typically have diameters of approximately 7-500 microns, preferably about 7-35 microns. The bundles may comprise at least 10% reinforcing fibers, such as glass, aramid or acrylic.

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